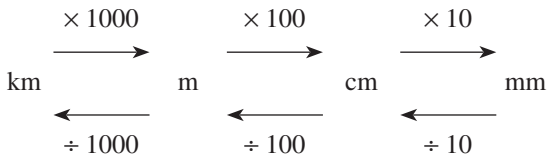
SKILLSHEET 2.1

# Conversion of units

**Length**

Common units are: millimetre (mm), centimetre (cm), metre (m), kilometre (km).

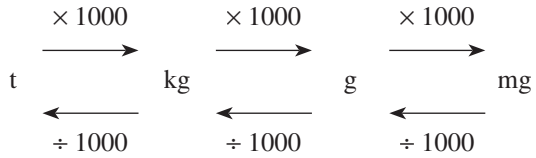
10 mm = 1 cm
100 cm = 1 m
1000 m = 1 km




**Mass**

Common units are: milligram (mg), gram (g), kilogram (kg), tonne (t).

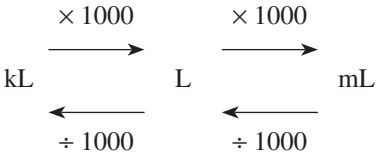
1000 mg = 1 g
1000 g = 1 kg
1000 kg = 1 t




**Capacity**

Common units are: millilitre (mL), litre (L), kilolitre (kL).

1000 mL = 1 L
1000 L = 1 kL




***Remember:*** **Converting to a smaller unit → Multiply**
**Converting to a larger unit → Divide**

**WORKED EXAMPLE**

**Convert each of the following measurements to the units shown in the brackets.**
**a 5 cm [mm]** **b 80 000 cm [km]** **c 3.5 L [mL]** **d 20 kg [t]**

| THINK | WRITE |
|---|---|
| **a** To convert to smaller units, we need to multiply. Since 1 cm = 10 mm, multiply by 10. | **a** 5 cm $= 5 \times 10$<br>$= 50$ mm |
| **b** To convert to larger units, we need to divide. First divide by 100 (to change from cm to m) and then by 1000 (to change from m to km). Overall this is equivalent to dividing by 100 000. | **b** 80 000 cm $= 80\,000 \div 100\,000$<br>$= 0.8$ km |
| **c** To convert to smaller units, we need to multiply. Since 1 L = 1000 mL, multiply by 1000. | **c** 3.5 L $= 3.5 \times 1000$<br>$= 3500$ mL |
| **d** To convert to larger units, we need to divide. Since 1 t = 1000 kg, divide by 1000. | **d** 20 kg $= 20 \div 1000$<br>$= 0.02$ t |

## Try these

Convert each of the following measurements to the unit shown in the brackets.

**1** 2 m [cm]
2 m = 2 × .....
= ..... cm

**2** 53 mm [cm]
53 mm = ..... ÷ .....
= ..... cm

**3** 610 km [m]
610 km = .....
= ..... m

**4** 0.0003 km [cm]
.....
.....

**5** 5600 mm [m]
.....
.....

**6** 11.3 cm [mm]
.....
.....

**7** 12 304 m [km]
.....
.....

**8** 0.0007 m [mm]
.....
.....

**9** 6300 mL [L]
.....
.....

**10** 0.8 kL [L]
.....
.....

**11** 0.011 t [kg]
.....
.....

**12** 0.0042 kL [mL]
.....
.....

**13** 9000 mg [g]
.....
.....

**14** 765 g [kg]
.....
.....

**15** 0.000 089 kg [mg]
.....
.....

**16** 14 683 mg [kg]
.....
.....

# SKILLSHEET — ANSWERS

SKILLSHEET 2.1

## Conversion of units

**1** 200 cm
**2** 5.3 cm
**3** 610 000 m
**4** 30 cm
**5** 5.6 m
**6** 113 mm
**7** 12.304 km
**8** 0.7 mm
**9** 6.3 L
**10** 800 L
**11** 11 kg
**12** 4200 mL
**13** 9 g
**14** 0.765 kg
**15** 89 mg
**16** 0.014 683 kg